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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID M. EMERLING and GEORGE B. BYMA

Appeal 2009-002966
Application 10/711,457
Technology Center 3600

Decided: November 23, 2009

Before LINDA E. HORNER, MICHAEL W. O'NEILL, and
STEFAN STAICOVICI, *Administrative Patent Judges*.

HORNER, *Administrative Patent Judge*

DECISION ON APPEAL

STATEMENT OF THE CASE

David M. Emerling and George B. Byma (Appellants) seek our review under 35 U.S.C. § 134 of the Examiner's decision rejecting claims 1-18. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

SUMMARY OF DECISION

We REVERSE and ENTER A NEW GROUND OF REJECTION PURSUANT TO OUR AUTHORITY UNDER 37 C.F.R. § 41.50(b).

THE INVENTION

Automotive visors are usually formed from a core member and a fabric or leather cover material that is wrapped and then adhered or otherwise attached about the exterior of the core member. Spec. 1, para. 3. Appellants' claimed invention is to an automobile visor and method in which a cover layer is integrally formed in place on the outer surface of a core member of the visor. App. Br., Claims Appx., and Spec. 1, para. 1. Independent claims 1, 10, and 16, are reproduced below.

1. An automotive visor, comprising:

a core member having an outer surface;

a polymeric cover layer integrally formed in place onto said outer surface of said core member; and

a support arm coupled to said core member and adapted to mount the visor proximate a windshield of an automobile.

10. A method of forming an automotive visor, comprising:

forming a visor core from a polymeric material having a first hardness;

integrally forming a cover layer in place on an outer surface of the visor core, the cover layer comprising polymeric material having a second hardness relatively lower than the first hardness; and

coupling a support arm to the visor core, the support arm adapted to mount the visor proximate a windshield of an automobile.

16. A method of forming an automotive visor, comprising:

providing a visor core;

integrally forming a polymeric cover layer in place on an outer surface of the visor core; and

coupling a support arm to the visor core, the support arm adapted to mount the visor proximate a windshield of an automobile.

THE EVIDENCE

The Examiner relies upon the following evidence:

Binish	US 5,720,509	Feb. 24, 1998
Hier	US 2003/0184064 A1	Oct. 2, 2003
Mills	US 6,840,561 B2	Jan. 11, 2005
Fischer	GB 2 336 577 A	Oct. 27, 1999

THE REJECTIONS

Appellants seek review of the following rejections:

1. Claims 1-6, 10-13, and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Mills and Hier.
2. Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Mills, Hier, and Fischer.
3. Claims 8, 9, 14, 15, 17, and 18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Mills, Hier, and Binish.

ISSUE

The Examiner found Mills discloses an automotive visor that has a core member 12, a cover layer 14, and a support arm 16, but that Mills does not disclose a polymeric cover layer material that is integrally molded in place. Ans. 3-4. The Examiner found that Hier teaches forming a polymeric cover layer in place onto the outer surface of a core member of a vehicle interior part. Ans. 4 (citing figure 7 of Hier). The Examiner concluded it would have been obvious to cover the core member of Mills with a formed-in-place polymeric cover layer, as taught by Hier, "as an effective method to provide a cover on the core member having obvious and expected results." *Id.*

Appellants contend the Examiner has failed to present a reasonable rationale for modifying the visor of Mills in view of Hier. App. Br. 6-9; Reply Br. 2.

The issue presented by this appeal is:

Have Appellants shown the Examiner failed to provide a sufficient rationale to explain why one having ordinary skill in the art would have been led to modify the visor of Mills in the manner claimed in view of the teaching of Hier?

FINDINGS OF FACT

We find that the following enumerated findings are supported by at least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

1. Hier discloses vehicle seamless interior panels for concealing and deploying an airbag. Hier 1, para. 0002. Hier describes a panel 10 having a retainer portion 12 which is disposed adjacent an airbag 16 and has an opening 20 formed therethrough to define a void 22 over airbag 16. Hier describes a door portion 14 disposed within void 22 to define a seamless airbag door through which airbag 16 may deploy. Door portion 14 is molded to retainer portion 12 with compatible materials such that the interface 26 between the portions has a low resistance threshold to stress to allow the portions to separate when the airbag is deployed. Hier 2, para. 0020, figs. 1, 2.
2. Figure 7 of Hier is a flowchart describing a two-shot molding process for forming the retainer portion of the panel and then forming the door portion of the panel within the void in the retainer

panel and simultaneously bonding the door portion to the retainer portion. Hier 2-3, para. 0025; fig. 7.

PRINCIPLES OF LAW

"Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.'" *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also KSR*, 550 U.S. at 407 ("While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.")

The Supreme Court stated that when the claimed subject matter involves more than the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement, then an analysis of whether there was an apparent reason to combine the known elements in the fashion claimed is required:

> Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design

> community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.

Id. at 418. The Court noted that "[t]o facilitate review, this analysis should be made explicit." *Id.* (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness")). However, "the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *Id.*

ANALYSIS

It is undisputed that Mills fails to disclose a polymeric cover layer integrally formed in place on an outer surface of a core member. Ans. 3-4; App. Br. 7. Hier is directed to molding a door portion of a vehicle panel within an opening formed in the retainer portion of the vehicle panel so as to cover an airbag in a seamless fashion (Fact 1). Although Hier discloses that it was known in the art to use a two-shot molding process to mold one portion of a vehicle panel within another portion of a vehicle panel, we find Examiner's rejection insufficient to explain what in the prior art would have prompted a person having ordinary skill in the art to apply this two-shot

molding processing of Hier to the visor of Mills so as to mold a polymeric cover layer over the core member of the visor. The Examiner has not provided any findings that either Mills or Hier recognized a problem with the conventional technique used in Mills to apply the cover layer to the visor core. Absent hindsight, we fail to see why one having ordinary skill in the art would have been led by the teachings of Hier to modify the visor of Mills in the manner claimed. As such, we cannot sustain the rejection of claims 1-6, 10-13, and 16 under § 103 as unpatentable over Mills and Hier.

The rejection of claim 7 under § 103 based on Mills, Hier, and Fischer and the rejection of claims 8, 9, 14, 15, 17, and 18 under § 103 based on Mills, Hier, and Binish are based on the same insufficient articulation of a reason to combine Mills and Hier. As such, we cannot sustain these rejections for the same reasons provided *supra*.

NEW GROUND OF REJECTION

We enter a new ground of rejection pursuant to our authority under 37 C.F.R. § 41.50(b). By rule, this panel has discretion to add one or more new grounds of rejection:

> Should the Board have knowledge of any grounds not involved in the appeal for rejecting any pending claim, it *may* include in its opinion a statement to that effect with its reasons for so holding, which statement constitutes a new ground of rejection of the claim.

37 C.F.R. § 41.50(b) (emphasis added). The rule is permissive and merely provides the Board panel with the option of making a new ground of

rejection. In the analysis that follows, we have chosen to enter a new ground of rejection of only independent claims 1, 10, and 16 under 35 U.S.C. § 102(b) as anticipated by Fischer. We leave it to the Examiner to determine whether any further rejections of the pending claims are appropriate.

ADDITIONAL FINDINGS OF FACT

3. Fischer discloses a vehicle visor 10 having a visor body 12 and swivel mounting support shaft 14. Fischer, p. 4, ll. 3-4; *Id.* at 6, l. 19; fig. 1.
4. The visor body 12 is formed of an expandable polyolefin particle ("EPP") or bead inner layer or core 52 and an in-molded exterior fabric 54 constructed of non-woven PET, vinyl sheeting, nylon, or polypropylene (exterior surface) coated with treated polyvinyl chloride (TPO) (interior surface). Fischer, p. 5, l. 23 – p. 6, l. 3.
5. Appellants describe that it was known at the time of Appellants' invention to make visors of a relatively harder plastic or cardboard core member with a relatively less hard fabric or leather material wrapped over the core member. Spec., para. 3. Based on the conventional construction of automobile visors, one having ordinary skill in the art would understand Fischer to inherently, if not explicitly, disclose an exterior fabric 54 having a hardness relatively lower than the hardness of core 52.
6. Fischer describes forming the visor body 12 using a two-piece mold set 114 having a first mold half 116 and a second mold half

118. Fischer, p. 8, ll. 14-16. The exterior fabric 54 is positioned within mold cavity 124 of first mold half 116 and vacuum pressure is applied to draw the fabric tightly against the mold cavity. Fischer, p. 9, ll. 1-3. The second mold half 118 is then moved toward the first mold half 116 to partially or completely close the mold, and then the fabric is pre-heated to increase the fabric flexibility. Fischer, p. 9, ll. 6-14. The EPP beads for the core 52 are then injected into the mold cavity 124. Fischer, p. 9, ll. 17-18. Once the molding process is complete, "the mold halves 58, 60 with the in-molded skin 54 are removed from the mold." Fischer, p. 10, ll. 9-10. As such, the resulting visor body has a cover material bonded to a core member. Fischer, p. 2, ll. 2-9.

7. Fischer discloses that the swivel mounting shaft 14 is provided with a proximal end 44 which extends into the visor body 12 through a swivel mount orifice, and is received within indentations 68, 92 formed in the top and bottom halves 58, 60 of core 52. Fischer, p. 4, ll. 27-28; *Id.* at 6, ll. 17-28; *Id.* at 7, ll. 21-26. Fischer discloses that the swivel mounting shaft 14 is provided with a distally-located swivel mount 42, which mates with a swivel mount receiver within a vehicle interior to mount the visor above either the operator of the vehicle or a vehicle passenger, and thus proximate a windshield of an automobile. Fischer, p. 4, ll. 24-27; fig. 1.

ANALYSIS

Claim Construction

Independent claim 1 is directed to an automotive visor including a core member having an outer surface and a polymeric cover layer integrally formed in place onto said outer surface of said core member. The limitation of "integrally formed in place onto said outer surface of said core member" is a product-by-process limitation.

"A product-by-process claim is 'one in which the product is defined at least in part in terms of the method or process by which it is made.'" *SmithKline Beecham Corp. v. Apotex Corp.*, 439 F.3d 1312, 1315 (Fed. Cir. 2006) (quoting *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 158 (1989)). "The purpose of product-by-process claims is to allow inventors to claim 'an otherwise patentable product that resists definition by other than the process by which it is made.'" *SmithKline*, 439 F.3d at 1315 (quoting *In re Thorpe*, 777 F.2d 695, 697 (Fed. Cir. 1985)). Such claims are still directed to the ultimate product, not the underlying process. *See id.* at 1317 ("Regardless of how broadly or narrowly one construes a product-by-process claim, it is clear that such claims are always to a product, not a process."). "Once a product is fully disclosed in the art, future claims to that same product are precluded, even if that product is claimed as made by a new process" *SmithKline*, 439 F.3d at 1315. Thus, "[i]f the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.3d at 697. In other words,

"[t]he patentability of a product does not depend on its method of production." *SmithKline*, 439 F.3d at 1317.

As such, claim 1 structurally requires that the cover layer is integral with the core member along a common surface where the two materials meet. In other words, claim 1 requires some amount of bonding between the cover layer material and the core member material at their common surface. Although Appellants' Specification describes a two-shot molding process for forming the core member and cover layer (Spec. para. 19), claim 1 is not limited to any particular process for forming the integral bond between the materials.

Independent method claims 10 and 16 recite the steps of forming (claim 10) or providing (claim 16) a visor core and integrally forming a cover layer in place on an outer surface of the visor core. A two-part test has been established for determining if the steps of a method claim that do not otherwise recite an order must nonetheless be performed in the order in which they are written. First, we look to the claim language to determine if, as a matter of logic or grammar, the recited steps must be performed in the order written. "If not, we next look to the rest of the specification to determine whether *it* 'directly or implicitly requires such a narrow construction.'" *Altiris Inc. v. Symantec Corp.*, 318 F.3d 1363, 1369-70 (Fed. Cir. 2003) (quoting *Interactive Gift Express, Inc. v. CompuServe Inc.*, 256 F.3d 1323, 1343 (Fed. Cir. 2001)) (emphasis in original). If not, the sequence in which such steps are written is not a requirement of the claim. *Id.*

First, the claim language of claims 10 and 16 recites that the cover layer is integrally formed in place on an outer surface of the visor core. We do not read this claim language to require that the core member has been formed prior to the integrally forming step. The integration of the cover layer material with the visor core material occurs during the molding process so that claims 10 and 16 are broad enough to encompass simultaneous formation of the visor core and integral formation of the cover layer on the visor core. Second, Appellants' Specification does not require such a narrow reading of the claims. Rather, the Specification describes one embodiment in which the core member is formed prior to the integrally molding step (Spec., para. 19), but it also describes that "[t]he core member may be formed by various molding methods." Spec, para. 5. As such, we construe claims 10 and 16 to be broad enough to encompass a method in which the core member is formed simultaneously with the integrally-forming step.

Anticipation

With regard to claim 1, Fischer discloses an automotive visor 10 comprising a core member 52 and a polymeric cover layer 54 integrally formed in place onto an outer surface of the core member (Facts 3-6). In particular, the cover layer 54 of Fischer is "in-molded" with the core member 52 so that the two materials are bonded together at their common surface and are structurally the same as the claimed core member and polymeric cover layer (Fact 6). Fischer further discloses a support arm 14 coupled to the core member 52 and adapted to mount the visor proximate a

windshield of an automobile (Facts 3, 7). As such, Fischer anticipates independent claim 1.

With regard to claim 10, Fischer discloses the method of forming an automotive visor 10 including forming a visor core 52 from a polymeric material having a first hardness (Facts 3-6) and integrally forming a cover layer 54 in place on an outer surface of the visor core 52 (Fact 6), the cover layer comprising a polymeric material having a hardness relatively lower than the hardness of the core polymeric material (Facts 4, 5). In particular, the visor core 52 of Fischer is formed at the same time that the cover layer 54 is being integrally molded to the core (Fact 6). Fischer further discloses coupling a support arm to the visor core, where the support arm is adapted to mount the visor proximate a windshield of an automobile (Facts 3, 7). As such, Fischer anticipates independent claim 10.

With regard to claim 16, Fischer discloses the method of forming an automotive visor 10 including forming a visor core 52 (Facts 3-6) and integrally forming a polymeric cover layer 54 in place on an outer surface of the visor core 52 (Fact 6). In particular, the visor core 52 of Fischer is formed at the same time that the cover layer 54 is being integrally molded to the core (Fact 6). Fischer further discloses coupling a support arm to the visor core, where the support arm is adapted to mount the visor proximate a windshield of an automobile (Facts 3, 7). As such, Fischer anticipates independent claim 16.

Our new ground of rejection addresses only the independent claims under our discretionary authority under 37 C.F.R. § 41.50(b). We leave the

patentability determination of the remaining dependent claims to the Examiner. *See* MPEP § 1213.02.

CONCLUSION

Appellants have shown the Examiner failed to provide a sufficient rationale to explain why one having ordinary skill in the art would have been led to modify the visor of Mills in the manner claimed in view of the teaching of Hier.

DECISION

The decision of the Examiner to reject claims 1-18 is reversed.

We enter a new ground of rejection of independent claims 1, 10, and 16 under 35 U.S.C. § 102(b) as being anticipated by Fischer. This decision contains new grounds of rejection pursuant to 37 C.F.R. § 41.50(b) (2009). 37 C.F.R. § 41.50(b) provides "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

37 C.F.R. § 41.50(b) also provides that Appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new grounds of rejection to avoid termination of the appeal as to the rejected claims:

> (1) *Reopen prosecution.* Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the Examiner, in which event the proceeding will be remanded to the Examiner. . . .

> (2) *Request rehearing*. Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

REVERSED; 37 C.F.R. § 41.50(b)

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